

**REMARKS**

Claims 1-4 are pending and stand rejected. With this response, claims 1, 3 and 4 are amended, and claim 2 is cancelled. Support for amended Claims 1 is found in the Specification, for example, at page 6, lines 16-18 and Example 8 and Table 10. Support for amended Claim 3 is found in the Specification, for example, at page 22, Example 5. Support for amended Claims 4 is found in the specification, for example, Examples 8, 9, and 11.

**Rejection of Claims 1, 2 and 4 Under 35 U.S.C. §112, First Paragraph**

Claims 1, 2 and 4 were rejected under 35 U.S.C. §112, first paragraph. Claims 1 and 4 have been amended to overcome this rejection. Claim 1 is amended to clarify that the  $\beta$ -glucan is in a triple helix conformation and that it enhances the killing activity of immune cells. (see, for example, Example 8 and Table 10) Further, those skilled in the art understand the term “inflammatory response” and what it encompasses, and, as described in Example 8, patients receiving the  $\beta$ -glucan did not experience fever or inflammatory reactions. Thus, claim 1 is enabled by the specification.

Claim 4 is amended to clarify that the  $\beta$ -glucan mobilizes monocytes, neutrophils and platelets, which is also enabled by the specification. (See, for example, Examples 8, 9 and 11). Claim 4 is further amended to correct a typographical error and to provide proper antecedent basis.

Claim 3 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 3 is amended to clarify that the  $\beta$ -glucan has a greater affinity for the glucan receptor than other glucan receptor ligands, such as zymosan and single helix  $\beta$ -glucan. With the above amendments, reconsideration and withdrawal of the rejections are requested.

**Rejection of Claims 1 Under 35 U.S.C. §102**

Claim 1 are rejected under 35 U.S.C. §102 as being anticipated by Sugiura *et al.* As amended, claim 1 now clarifies that the  $\beta$ -glucan is in a triple helix conformation. The disclosure of Sugiura *et al.* does not teach or suggest a glucan having a triple helix conformation. As such, reconsideration and withdrawal of the rejection are respectfully requested.

**Double Patenting Rejection**

Claims 1-4 stand rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over U.S. Patent 6,369,216, U.S. Patent 5,811,542, U.S. and U.S. Patent 5,322,841. Claims 1-4 were also provisionally rejected over Application No. 11/333,765. Applicants respectfully disagree. Applicants amended claims are distinct from these cited patents and application. For example, U.S. Patent No. 6,369,216 and U.S. Application No. 11/333,765 are directed to triple-helix **aggregates** having an average molecular weight of at least 1,000,000 daltons, U.S. Patent No. 5,322,841 is directed to process claims for producing purified neutral aqueous soluble (1-3) glucan. Reconsideration and withdrawal are respectfully requested.

A Terminal Disclaimer over U.S. Patent No. 5,783,569 is being filed with this Amendment.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,  
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